

Becquerel Crater Dune and Yardang Interactions

HiRISE DTMs of Becquerel Crater, located in Arabia Terra, are especial helpful for understanding dune-topography interactions. A dune field can be seen lining the north and south edges of the crater's interior layered deposit. The summit of the deposit reaches 700 meters above the crater floor. Additionally, multiple erosional features can be observed on the surface of the deposit including: staircase weathering, knobs, and yardangs.





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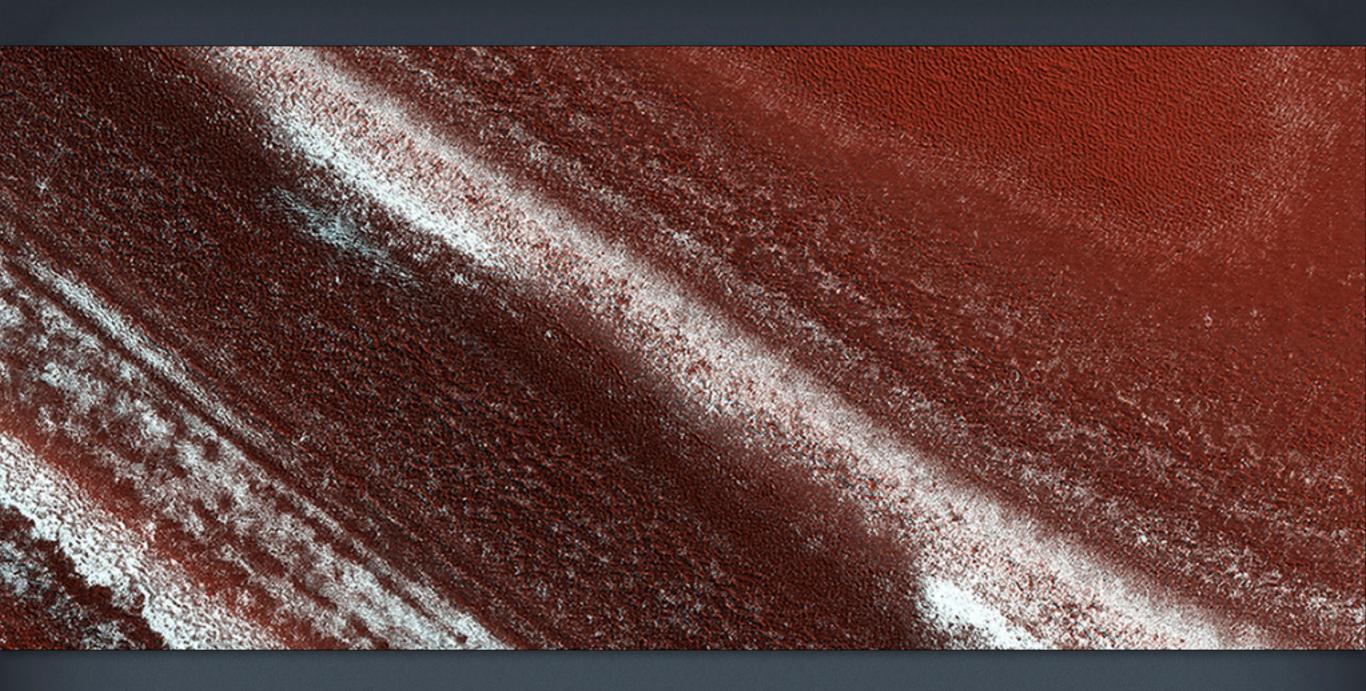
Small Expanded Craters in the Northern Lowlands

This image shows many small craters over a larger degraded one in the northern lowlands. These small craters are smoother and shallower than their counterparts closer to the equator. Scientists believe this difference is a result of impact into a region with subsurface ice, which sublimates when exposed to the Martian atmosphere. This causes the crater to gradually expand and flatten after impact.





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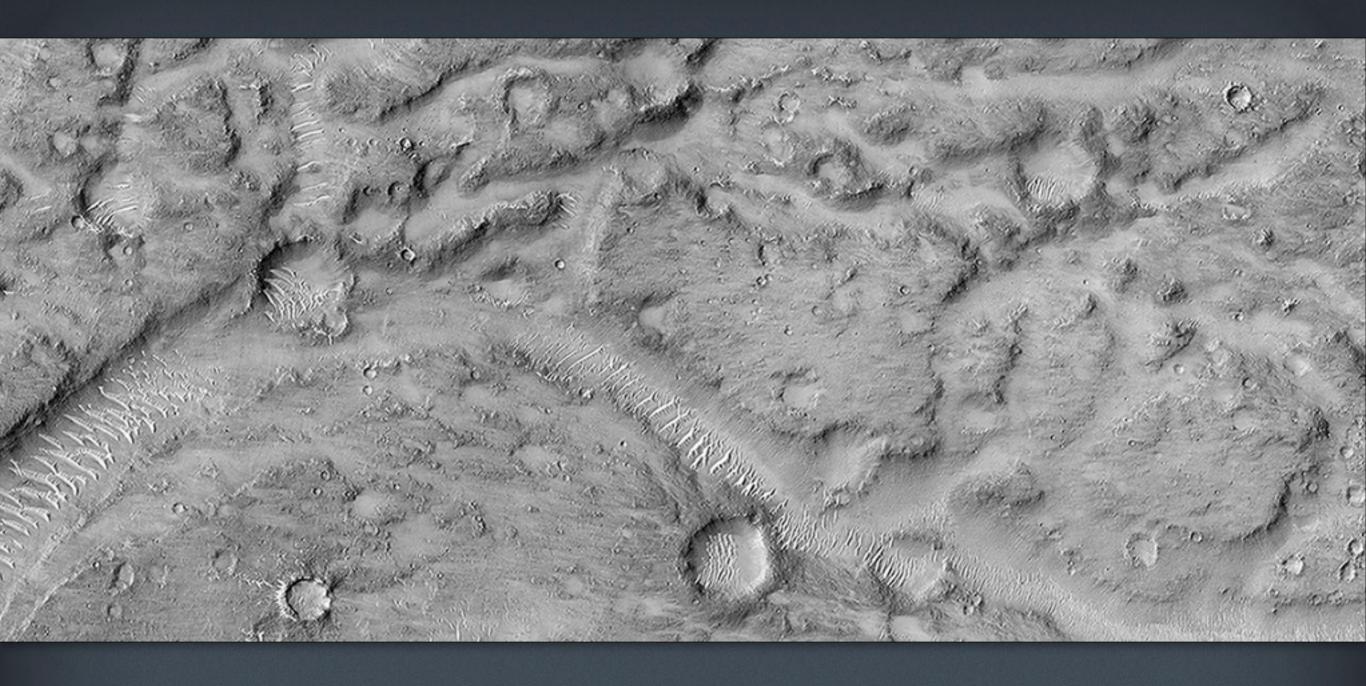
North Polar Cap Layers and Ledges

At the edge of Mars' permanent North Polar cap, we see an exposure of the internal layers, each with a different mix of water ice, dust and dirt. These layers are believed to correspond to different climate conditions over the past tens of thousands of years.



uahirise.org/ESP_045604_2645





Ancient Streamlined Islands of the Palos Outflow Channel The morphology of the channel system and its islands have been preserved through the eons, but water has long been absent from this drainage system. Since then, winds have transported light-toned sediments across this terrain forming extensive dune fields within the channel system, on the floors of impact craters, and in other protected locations in the Palos Outflow Channel region.





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